



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2015-3143; Directorate Identifier 2015-NM-047-AD]**

**RIN 2120-AA64**

**Airworthiness Directives;** Empresa Brasileira de Aeronautica S.A. (Embraer) Airplanes

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to adopt a new airworthiness directive (AD) for certain Empresa Brasileira de Aeronautica S.A. (Embraer) Model EMB-135 airplanes and Model EMB-145, -145ER, -145MR, -145LR, -145MP, and -145EP airplanes. This proposed AD was prompted by a report of chafing between the fuel pump electrical harness and the fuel pump tubing during scheduled maintenance. This proposed AD would require a detailed inspection for chafing on the electrical harness of each electrical fuel pump in the fuel tanks, replacing the affected electrical fuel pump with a new or serviceable pump if necessary, and installing clamps on the fuel pump electrical harnesses. We are proposing this AD to detect and correct chafing of the fuel pump harnesses with other parts inside the fuel tank, which could present a potential ignition source that could result in a fire or fuel tank explosion.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Empresa Brasileira de Aeronautica S.A. (Embraer), Technical Publications Section (PC 060), Av. Brigadeiro Faria Lima, 2170 - Putim - 12227-901 São Jose dos Campos - SP – Brasil; telephone +55 12 3927-5852 or +55 12 3309-0732; fax +55 12 3927-7546; email [distrib@embraer.com.br](mailto:distrib@embraer.com.br); Internet <http://www.flyembraer.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

## **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-3143; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Todd Thompson, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1175; fax 425-227-1149.

## **SUPPLEMENTARY INFORMATION:**

### **Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2015-3143; Directorate Identifier 2015-NM-047-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

## **Discussion**

The Agência Nacional de Aviação Civil (ANAC), which is the aviation authority for Brazil, has issued Brazilian Airworthiness Directive 2015-03-01, effective March 23, 2015 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Empresa Brasileira de Aeronautica S.A. (Embraer) Model EMB-135 airplanes and Model EMB-145, -145ER, -145MR, -145LR, -145XR, -145MP, and -145EP airplanes. The MCAI states:

Chafing between the fuel pump electrical harness and fuel pump tubing was detected during scheduled maintenance. We are issuing this [Brazilian] AD to protect the fuel pump harnesses against chafing with other parts inside the fuel tank, which could present a potential ignition source that could result in a fire or fuel tank explosion.

The required actions include a detailed inspection for chafing on the electrical harness of each electrical fuel pump in the fuel tanks, replacing the affected electrical fuel pump with a new or serviceable pump if necessary, and installing clamps on the fuel pump electrical harnesses. You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-3143.

**Related Service Information under 1 CFR part 51**

Embraer has issued Service Bulletin 145-28-0030, Revision 01, dated October 22, 2010; and Service Bulletin 145LEG-28-0032, Revision 01, dated November 20, 2012. The service information describes procedures for a detailed inspection for chafing on the electrical harness of each electrical fuel pump in the fuel tanks, replacing the affected electrical fuel pump with a new or serviceable pump if necessary, and installing clamps on the fuel pump electrical harnesses. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section of this NPRM.

**FAA's Determination and Requirements of this Proposed AD**

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of these same type designs.

**Costs of Compliance**

We estimate that this proposed AD affects 731 airplanes of U.S. registry.

We also estimate that it would take about 11 work-hours per product to comply with the basic requirements of this proposed AD. The average labor rate is \$85 per

work-hour. Based on these figures, we estimate the cost of this proposed AD on U.S. operators to be \$683,485, or \$935 per product.

In addition, we estimate that any necessary follow-on actions would take about 6 work-hours and require parts costing \$11,242, for a cost of \$11,752 per product. We have no way of determining the number of aircraft that might need these actions.

According to the manufacturer, some of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

#### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

## **Regulatory Findings**

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

## **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

**§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**Empresa Brasileira de Aeronautica S.A. (Embraer):** Docket No. FAA-2015-3143; Directorate Identifier 2015-NM-047-AD.

**(a) Comments Due Date**

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to the airplanes specified in paragraphs (c)(1) and (c)(2) of this AD.

(1) Empresa Brasileira de Aeronautica S.A. (Embraer) Model EMB-135ER -135KE, -135KL, and -135LR airplanes; and Model EMB-145, -145ER, -145MR, -145LR, -145MP, and -145EP airplanes, certificated in any category, as identified in Embraer Service Bulletin 145-28-0030, Revision 01, dated October 22, 2010.

(2) Empresa Brasileira de Aeronautica S.A. (Embraer) Model EMB-135BJ airplanes, certificated in any category, as identified in Embraer Service Bulletin 145LEG-28-0032, Revision 01, dated November 20, 2012.

**(d) Subject**

Air Transport Association (ATA) of America Code 28, Fuel.



**(e) Reason**

This AD was prompted by a report of chafing between the fuel pump electrical harness and the fuel pump tubing during scheduled maintenance. We are issuing this AD to detect and correct chafing of the fuel pump harnesses with other parts inside the fuel tank, which could present a potential ignition source that could result in a fire or fuel tank explosion.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Detailed Inspection and Corrective Action**

Do the actions specified in paragraphs (g)(1) and (g)(2) of this AD at the applicable times specified in paragraph (h)(1) or (h)(2) of this AD.

(1) Do a detailed inspection for chafing on the electrical harness of each electrical fuel pump in the fuel tanks, in accordance with the Accomplishment Instructions of Embraer Service Bulletin 145-28-0030, Revision 01, dated October 22, 2010 (for Model EMB-135ER, -135KE, -135KL, and -135LR airplanes; and Model EMB-145, -145ER, -145MR, -145LR, -145MP, and -145EP airplanes); or Embraer Service Bulletin 145LEG-28-0032, Revision 01, dated November 20, 2012 (for Model EMB-135BJ airplanes). If any chafing is found, before further flight, replace the affected electrical fuel pump with a new or serviceable pump having the same part number, in accordance with the Accomplishment Instructions of Embraer Service Bulletin 145-28-0030, Revision 01, dated October 22, 2010; or Embraer Service Bulletin 145LEG-28-0032, Revision 01, dated November 20, 2012; as applicable.

(2) Install clamps on the fuel pump electrical harnesses, in accordance with the Accomplishment Instructions of Embraer Service Bulletin 145-28-0030, Revision 01, dated October 22, 2010 (for Model EMB-135ER, -135KE, -135KL, and -135LR airplanes; and Model EMB-145, -145ER, -145MR, -145LR, -145MP, and -145EP airplanes); or Embraer Service Bulletin 145LEG-28-0032, Revision 01, dated November 20, 2012 (for Model EMB-135BJ airplanes).

**(h) Compliance Times**

(1) For Model EMB-135ER, -135KE, -135KL, and -135LR airplanes; and Model EMB-145, -145ER, -145MR, -145LR, -145MP, and -145EP airplanes: Do the actions specified in paragraph (g) of this AD within 2,500 flight hours or 24 months after the effective date of this AD, whichever occurs first.

(2) For Model EMB-135BJ airplanes: Do the actions specified in paragraph (g) of this AD within 4,800 flight hours or 48 months after the effective date of this AD, whichever occurs first.

**(i) Credit for Previous Actions**

This paragraph provides credit for actions required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using Embraer Service Bulletin 145-28-0030, dated September 1, 2010 (for Model EMB-135ER, -135KE, -135KL, and -135LR airplanes; and Model EMB-145, -145ER, -145MR, -145LR, -145MP, and -145EP airplanes); or Embraer Service Bulletin 145LEG-28-0032, dated September 15, 2012 (for Model EMB-135BJ airplanes). This service information is not incorporated by reference in this AD.

**(j) Other FAA AD Provisions**

The following provisions also apply to this AD:

**(1) Alternative Methods of Compliance (AMOCs):** The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Todd Thompson, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1175; fax 425-227-1149. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

**(2) Contacting the Manufacturer:** For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the Agência Nacional de Aviação Civil (ANAC); or ANAC's authorized Designee. If approved by the ANAC Designee, the approval must include the Designee's authorized signature.

**(k) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Brazilian Airworthiness Directive 2015-03-01, dated March 23, 2015, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-3143.

(2) For service information identified in this AD, contact Empresa Brasileira de Aeronautica S.A. (Embraer), Technical Publications Section (PC 060), Av. Brigadeiro Faria Lima, 2170 - Putim - 12227-901 São Jose dos Campos - SP – Brasil; telephone +55 12 3927-5852 or +55 12 3309-0732; fax +55 12 3927-7546; email [distrib@embraer.com.br](mailto:distrib@embraer.com.br); Internet <http://www.flyembraer.com>. You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on August 12, 2015.

Suzanne Masterson,  
Acting Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.

[FR Doc. 2015-20589 Filed: 8/20/2015 08:45 am; Publication Date: 8/21/2015]